



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,570	07/27/2001	Wesley Wilkinson	1674/43755CO	9318

7590 05/27/2005
CROWELL & MORING, L.L.P.
P. O. Box 14300
Washington, DC 20044-4300

EXAMINER
BOTTORFF, CHRISTOPHER

ART UNIT	PAPER NUMBER
3618	27

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/915,570

Applicant(s)

WILKINSON, WESLEY

Examiner

Christopher Bottorff

Art Unit

3618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-29,32-35,37-40 and 48-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-29,32-35,37-40 and 48-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed March 31, 2005 has been entered. Claims 23-29, 32-35, 37-40, and 48-59 are pending.

Claim Objections

Claims 24, 33, and 38 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Note that the limitations of claims 24, 33, and 38 are already recited in claims 49, 50, and 52. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form.

Also, claim 59 recites the limitation "two self-contained gas strut" on line 6. The term "strut" should be stated in the plural (i.e.: "struts") since there are two of them.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 23-29, 32-35, 37-40, 48-53, and 58 are rejected under 35 U.S.C. 102(e) as being anticipated by Fullenkamp et al. US 5,348,326.

Fullenkamp et al. discloses a trolley with a control wheel assembly and having a longitudinal axis of travel and an array of four castors that are disposed at the corners of the trolley. See column 2, lines 3-46. The assembly includes a fixed wheel 44 positioned in a region where the load center of the trolley and the center of the array of castors coincide. The fixed wheel rotates about a horizontal axis but cannot rotate about a vertical axis. Also, a biasing and damping means, in the form of a gas strut, is provided with the fixed wheel and is independent of the castors. Note column 2, lines 29-31. In that the fixed wheel and biasing and damping means are centrally located, the biasing and damping means has a castor wheel on each side. The biasing and damping means is biased downward towards a surface on which the trolley is intended to travel and is operable to provide controlled contact between the fixed wheel and the surface. A force provided by the biasing and damping means is independent of the load on the trolley, is less than a weight on the trolley, and does not exceed the weight of an empty trolley. Furthermore, a lifting means is provided for lifting the fixed wheel out of contact with the ground.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23-29, 32-35, 37-40, and 48-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lloyd in view of the admitted prior art (Stabilus Gas Springs Technical Information).

Lloyd discloses a trolley with a control wheel assembly and having a longitudinal axis of travel and an array of four castors that are disposed at the corners of the trolley (see figure 1). The assembly includes a fixed wheel 34 positioned in a region where the load center of the trolley and the center of the array of castors coincide. The fixed wheel rotates about a horizontal axis 35 but cannot rotate about a vertical axis (see figure 3 and page 4, lines 27-28). A strut assembly is provided having a first part 36 connected to a member which rotatably supports the fixed wheel at axis 35 and a second part 39 which is fixed in use to the trolley (see figure 3). A lifting means 48 is provided for lifting the fixed wheel out of contact with the ground (see figure 3 and page 3, lines 6-10). Also, a biasing and damping means 43 is provided with the fixed wheel and is independent of the castors. In that the fixed wheel and biasing and damping means are centrally located, the biasing and damping means has a castor wheel on each side. The biasing and damping means is biased downward towards a surface on which the trolley is intended to travel and is operable to provide controlled contact between the fixed wheel and the surface. A force provided by the biasing and damping means is independent of the load on the trolley, is less than a weight on an empty trolley, and the force of the bias means does not exceed the weight of an empty trolley (see figure 1 and page 5, lines 1-5).

In addition, providing a plurality of fixed wheels that each have a biasing and damping means is taught by Lloyd (see page 9, lines 22-24) and represents an obvious duplication of parts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a plurality of fixed wheels, each with damping and biasing means, in order to improve the degree of control in the trolley.

However, Lloyd lacks a self-contained gas strut.

In the interviews conducted on May 16, 2000 and August 2, 2000, Applicant admitted that the claimed self-contained gas strut was a prior art design of the type demonstrated in the interviews and described in the Stabilus Gas Springs Technical Information publication. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the spring of Lloyd with the admitted prior art gas strut in order to provide counterbalance and force assistance to the fixed wheel and to gain the art recognized benefits of a gas spring vis-à-vis a mechanical spring. The claimed functional characteristics of the biasing and damping means (i.e.: the biasing force being independent of the load on the trolley, less than a weight on an empty trolley, and not exceed the weight of an empty trolley) are also true in this combined system.

Claims 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fullenkamp et al. US 5,348,326 in view of the admitted prior art (Stabilus Gas Springs Technical Information).

Fullenkamp et al. do not disclose a plurality of fixed wheels that each has a biasing and damping means comprising a gas strut. Rather, disclose a plurality of fixed wheels 44, 46 that each has a biasing and damping means comprising a mechanical spring (118 and 120 respectively). See Figure 6.

However, the admitted prior art design of the type demonstrated in the interviews and described in the Stabilus Gas Springs Technical Information publication teaches the desirability of utilizing a self-contained gas strut as a damping and biasing means. From the teachings of the admitted prior art as described in the Stabilus Gas Springs Technical Information publication, replacing springs 118 and 120 of Fullenkamp et al. with the admitted prior art gas strut would have been obvious to one of ordinary skill in the art at the time the invention was made. This would provide counterbalance and force assistance to the fixed wheel and would gain the art recognized benefits of a gas spring vis-à-vis a mechanical spring.

Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrand et al. US 5, 802,640 in view of the admitted prior art (Stabilus Gas Springs Technical Information).

Ferrand et al. disclose a control wheel assembly adapted to be fitted to a trolley having a longitudinal axis of travel and an array of castors having respective castor wheels. The control wheel assembly comprises two fixed wheels 646 with each fixed wheel adapted to be disposed in use on a side of a trolley chassis. See Figures 1 and 102 and column 49, line 66, through column 50, line 17. Two damping and biasing

means, in the form of compression springs 653, are provided independent of the castors with each compression spring being coupled to a fixed wheel and being operable to provide controlled contact between the fixed wheel and a surface on which the trolley is intended to travel. A force provided by the springs is independent of a load of the trolley and is less than a weight on an empty trolley. Also, note that there are two wheels and springs since one is located on each side of the bed.

Ferrand et al. do not disclose self-contained gas struts in place of the springs. However, the admitted prior art design of the type demonstrated in the interviews and described in the Stabilus Gas Springs Technical Information publication teaches the desirability of utilizing a self-contained gas strut as a damping and biasing means. From the teachings of the admitted prior art as described in the Stabilus Gas Springs Technical Information publication, replacing each of the springs 653 of Ferrand et al. with the admitted prior art self-contained gas strut would have been obvious to one of ordinary skill in the art at the time the invention was made. This would provide counterbalance and force assistance to the fixed wheel and would gain the art recognized benefits of a gas spring vis-à-vis a mechanical spring.

Response to Arguments

Applicant's arguments filed March 31, 2005 have been fully considered but they are not persuasive.

Applicant asserts that Fullenkamp et al. and Lloyd do not disclose a gas strut that "is able to provide a force that is independent of a load on a trolley or independent of

any load on any object in which a gas strut is used while at the same time being able to apply a force which is less than a weight on an empty trolley or any object on which a gas strut is used in Fullenkamp or a biasing and damping means in the reference to Lloyd."

However, the gas strut of Fullenkamp et al. is such a strut. The force characteristics of the gas strut are set by the manufacturer prior to installation in a trolley or any other object. Thus, the force provided by the gas strut of Fullenkamp et al. exists independent of the trolley or any other object. Also, if the strut were not able to apply a force which is less than a weight on the empty trolley, the strut would overcome the weight of the empty trolley and lift the castors off the ground. The force of the strut of Fullenkamp et al. is not so high that it would overcome the weight of an empty trolley and lift the castors off the ground since Fullenkamp et al. desire to maintain the casters in constant contact with the ground for stability and control. Moreover, Applicant has not identified any disclosure in Fullenkamp et al. that would indicate otherwise.

Similarly, the spring of Lloyd provides a force independent of the trolley while at the same time being able to apply a force which is less than a weight on an empty trolley since the force characteristics of the spring are set by the manufacturer and Lloyd also intends to maintain the casters in constant contact with the ground for stability and control. More importantly, the rejection of the claims involving Lloyd are based on a combination with the admitted prior art as described in the Stabilus Gas Springs Technical Information publication, and the resulting structure of this combination, which forms the basis of the rejection, would include a gas strut of the type

Art Unit: 3618

made by Stabilis. Since Applicant admits that the gas strut of the present claimed invention is a Stabilus gas strut, the strut of the structure resulting from the combination of Lloyd and the admitted prior art as described in the Stabilus Gas Springs Technical Information publication would be able to produce a force with these characteristics to the same extent as Applicant's strut. Moreover, Applicant has not identified how the structure resulting from the combination of Lloyd and the admitted prior art as described in the Stabilus Gas Springs Technical Information publication would not have the claimed force characteristics.

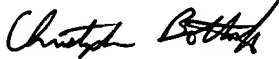
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher Bottorff